

Betz • Converse • Murdoch • Inc.

PROPOSAL

100 - Bishop Tube Co.
E. Whiteland Twp 401579
Chester Co.
Received 12/10/80

TO

ORIGINAL
(Red)

BISHOP TUBE COMPANY
MALIN ROAD
FRAZER, PA 19355

FOR

HYDROGEOLOGIC STUDY

BCM PROPOSAL NO. 13-8326-41R

MAY 2, 1980

PREPARED BY:

(b) (4)

SENIOR GEOLOGIST

BETZ • CONVERSE • MURDOCH • INC.
ONE PLYMOUTH MEETING MALL
PLYMOUTH MEETING, PENNSYLVANIA 19462

**ORIGINAL
(Red)**INTRODUCTION

Bishop Tube Company of Frazer, Pennsylvania has been instructed by the Pennsylvania Department of Environmental Resources (PA DER) to retain a consultant to conduct a study of groundwater conditions in the vicinity of their plant site. In the past, Bishop Tube and its former owners discharged sanitary sewage, cooling water, and acid pickling rinse water to an unlined pit and cesspool located on plant property. Over the past 1-1/2 years, these discharges were diverted to a sanitary sewer, a nearby stream, and holding tanks. Consequently, the use of the pit and cesspool was discontinued.

SCOPE OF WORK

Betz-Converse-Murdoch-Inc. (BCM) proposes the following scope of work to complete the hydrogeologic study at the Frazer site:

1. Initial Data Collection

A BCM geologist will collect pertinent data at the site relative to past disposal practices, existing wells and core boring records. The number of required monitoring wells and their location will be established.

2. Monitoring Well Installation

BCM will subcontract with a reputable well driller to install monitoring wells at locations established in Section 1.

A BCM geologist will supervise installing the monitoring wells and will inspect and certify their construction and the nature of subsurface conditions. It is assumed that three (3) monitoring wells will be required.

3. Water Sampling

BCM will collect water samples from the following locations:

- Existing wells - east and west wells
- Monitoring wells
- Discharge junction box and discharge outlet
- Stream - Above and below discharge outlet

ORIGINAL MAY 2, 1980

(Red)

The samples will be analyzed for the following parameters:

Nitrate

Fluoride

Iron

Ammonia

Chromium

Nickel

Zinc

Manganese

pH

Temperature

Samples will be collected once from each sampling point. If additional sampling is required, it will be done on a per diem basis, plus expenses. These parameters and sampling locations have been designated by the PA DER Bureau of Water Quality Management staff member assigned to follow-up on this investigation.

4. Report

A draft final report will be prepared and submitted to Bishop Tube upon completion of the study. This report will include an Introduction, Methods, Results, Conclusions, and Recommendations. BCM will meet with Bishop Tube to discuss the report, and to subsequently prepare a final report suitable for submission to PA DER. A meeting with the DER is also included under this task.

5. Discharge Pipe Flow Measurement (Optional)

At the discretion of the Bishop Tube Company, BCM will measure flows in the discharge pipe between the junction box and the discharge outlet. These measurements will determine if groundwater is leaking into the pipe in that interval, thereby degrading the quality of the discharge to the stream.

QUALIFICATIONS AND EXPERIENCE

BCM has the qualifications and experience necessary to perform the full range of work required for the completion of this hydrogeologic study. BCM's staff of geologists has supervised the installation of numerous monitoring wells and has completed the hydrogeologic interpretation of subsurface conditions and groundwater flow patterns. Hydrogeologic studies completed by BCM have also included groundwater sampling and negotiations with the PA DER on behalf of our clients.

The BCM geologists assigned to this study are (b) (4)(b) (4), Senior Geologist, and (b) (4)(b) (4)(b) (4), Geologist/Hydrologist. (b) (4)(b) (4) has completed over twenty hydrogeologic studies in his seven years with BCM. He will be actively involved in all aspects of the project. (b) (4)(b) (4)(b) (4) has extensive experience in the supervision of well drilling and sampling and will play an integral role in similar activities for this study. BCM's experienced technicians would perform the discharge pipe flow measurements, if that option is selected. Resumes of participants are attached.